

## ABSTRACT OF THE DISCLOSURE

For optimization of a direct current developing bias  $V_{avg}$ , a patch image  $I_{vn}$  is formed whose length is longer than a circumferential length  $L_0$  of a photosensitive member. From an average value of sensor outputs sampled over the length  $L_0$  of the patch image, a toner density of the patch image  $I_{vn}$  is calculated and a value corresponding to an average value  $OD_{avg}$  of optical densities  $OD$  is accordingly found. This cancels an influence of density variations appearing in association with rotating cycles of the photosensitive member exerted over a patch image.

(Fig. 22)